

\* NOTICES \*

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

---

**TECHNICAL PROBLEM**

---

[Description of the Prior Art]In addition to the height of the frequency, osteoporosis causes fracture of parts of the body, and attracts attention also not only as medical science but as a social problem now when an aging society progresses as a cause disease in which what is called a "bedridden elderly" is made to result. The I-beam osteoporosis as which many osteoporosis to a 75-year-old woman is mainly regarded from 50 years old of age, it is mainly classified into two typus morbi with II type osteoporosis mainly seen by the old man age aged 70 and over (Riggs B El et al. (Riggs BL et al).) \*\* Nu England Jar NARUOBU Mehdi Soon (The New England Journal ofMedicine), 314 volumes, 1676 pages, 1986. Here, fundamentally, although the bone metabolic turnover of osteoclasia and osteogenesis is the high metabolic turnover type which compares [ both ] normally and is accelerating, since osteoclasia has exceeded osteogenesis, I-beam osteoporosis causes reduction in bony. Reduction of the female sex hormone accompanying a menopause serves as a cause of a disease of sthenia of osteoclasia in many cases. . On the other hand, the metabolic turnover of osteoclasia and osteogenesis compared II type osteoporosis normally, and fell. It is a low metabolic turnover type and causes of a disease, such as lack of exercise, such as differentiation inducing of the osteocyte accompanying aging, [ the depression, bedridden ], the shortage of calcium ingestion besides the fall of osteogenesis ability, and production reduction of the vitamin D due to a decreased renal function, are quite various.

[0003]Based on the above cause of a disease and symptoms, to I-beam osteoporosis, drugs aiming at osteoclasia control are mainly used, and drugs aiming at osteogenesis promotion are mainly used to II type osteoporosis at the present. Although an estrogen preparation is mentioned as a typical remedy alone used for I-beam osteoporosis, thrombosis and the onset of cancer are reported by the metrorrhagia and chronic administration, and it is made with contraindication the patient with doubt of estrogen dependence tumors, such as thrombosis and a breast cancer, and a uterine cancer. Although calcitonin preparation, active-vitamin-D 3

pharmaceutical preparation, or ipriflavone is used for the therapy of osteoporosis, it is accepted that side effects, such as digestive trouble, such as nausea and vomiting, a shock disease, and an anaphylaxis, are revealed. It is an important technical problem to develop the safe remedy which such side effects do not reveal also from osteoporosis being a very long disease of a treatment period.

[0004]Recently, the patent application of the bone formation accelerating agent which made the active principle all the - \*\*\*\*- 5,8,11,14,17-eicosapentaenoic acid (it calls for short the following "EPA") obtained from refining fish oil was made (publication number No. 157912 [ one to ]). However, this specification shows an osteogenesis promotion operation of an EPA free object on the osteoblast from which the animal was isolated, and there is no suggestion called the operation and the control of osteoclasia to an osteoclast, and there is no description also about clinical validity. As mentioned above, in the therapy of I-beam osteoporosis, control of osteoclasia must be aimed at first. Therefore, it is thought that the bone formation accelerating agent currently indicated in the advanced technology suggests the therapy of II type osteoporosis. This is the publication number No. 157912 [ one to ].

---

[Translation done.]